



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,768	04/04/2001	Minoru Kuniyoshi	205446US0	1447

22850 7590 06/19/2002

OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT PC  
FOURTH FLOOR  
1755 JEFFERSON DAVIS HIGHWAY  
ARLINGTON, VA 22202

EXAMINER

BOS, STEVEN J

ART UNIT	PAPER NUMBER
----------	--------------

1754

DATE MAILED: 06/19/2002

67

Please find below and/or attached an Office communication concerning this application or proceeding.

24-4

# Office Action Summary

Application No.  
09/824,768

Applicant(s)  
Kuniyoshi et al

Examiner  
Steven Bos

Art Unit  
1754



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other:

Art Unit: 1754

Claims 3,7-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, "(K/Mn)" is superfluous.

In claim 7, "the treated ore" lack(s) proper antecedent basis in the claim(s).

In claim 9, "the reduction saturation time" lack(s) proper antecedent basis in the claim(s) and is indefinite as to what this is to mean.

In claim 10, "the treated ore" lack(s) proper antecedent basis in the claim(s).

In claim 10, "into contacted" is ungrammatical.

In claim 18, there needs to be a space between each of the words in line 2.

In claims 21,22,23, "which is conducted continuously" is indefinite; it appears that -- wherein the process is conducted continuously-- was intended.

In claims 26,27, "wherein the cooling is conducted continuously" is indefinite as to what this is to mean since it already appears that the cooling is continuous or it is unclear as to what the cooling is conducted continuous with.

In claim 31, there needs to be a space between each of the words.

In claim 31, "the resultant solution" lack(s) proper antecedent basis in the claim(s).

In claim 31, "the resultant manganese sulfate" lack(s) proper antecedent basis in the claim(s).

Art Unit: 1754

In claim 32, "the resultant aqueous solution of manganese sulfate" lack(s) proper antecedent basis in the claim(s).

In claim 33, "the resultant aqueous solution of manganese sulfate" lack(s) proper antecedent basis in the claim(s).

In claim 33, line 6, "the solution" is indefinite as to which solution this is referring to.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9,13-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Welsh '097.

Welsh teaches the instantly claimed process of treating a manganese ore with a reducing gas of methane at the instantly claimed temperature which would produce the instantly claimed treated manganese ore having the instantly claimed product characteristics since the taught process is the same as that instantly claimed. See claim 1 and col. 13.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within

the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results, see *In re Boesch*, 205 USPQ 215.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, *In re Malagari*, 182 USPQ 549.

Official Notice is taken by the examiner that the dependent claims are drawn to process particulars which, even if not expressly taught by the cited prior art of record, are well known in the art and would have been obvious to one of ordinary skill in the art to incorporate into the instantly claimed process.

Any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art the burden of proof is shifted to the applicant to establish that their product is patentably distinct not the examiner to show the same process of making, *In re Brown*, 173 USPQ 685, *In re Fessmann*, 180 USPQ 324, *In re Spada*, 15 USPQ2d 1655, *In re Fitzgerald*, 205 USPQ 594, and MPEP 2113.

Where the examiner has found a substantially similar product as in the applied prior art the burden of proof is shifted to the applicant to establish that their product is patentably distinct, see *In re Best*, 195 USPQ 430.

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over El Tawil '216 or Sasaki '906 or Kane '827 or Barner '094.

El Tawil '216 or Sasaki '906 or Kane '827 or Barner '094 each teach or at least suggest the instantly claimed process including the water immersion step which would form the instantly claimed product since the taught processes are the same as that instantly claimed for making the product. See cols. 2,4 and the claims of El Tawil; cols. 1-2 of Sasaki; cols. 4,11 of Kane; cols. 4,5,17,18 of Barner.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results, see *In re Boesch*, 205 USPQ 215.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, *In re Malagari*, 182 USPQ 549.

Official Notice is taken by the examiner that the dependent claims are drawn to process particulars which, even if not expressly taught by the cited prior art of record, are well known in the art and would have been obvious to one of ordinary skill in the art to incorporate into the instantly claimed process.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara '902 or Andersen '198 or Andersen '198 or Riggs, Jr. '320.

Each of the references teaches the instantly claimed electrolytic manganese dioxide. See the abstract of each.

Any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art the burden of proof is shifted to the applicant to establish that their product is patentably distinct not the examiner to show the same process of making, *In re Brown*, 173 USPQ 685, *In re Fessmann*, 180 USPQ 324, *In re Spada*, 15 USPQ2d 1655, *In re Fitzgerald*, 205 USPQ 594, and MPEP 2113.

Where the examiner has found a substantially similar product as in the applied prior art the burden of proof is shifted to the applicant to establish that their product is patentably distinct, see *In re Best*, 195 USPQ 430.

Claims 32,33 are rejected under 35 U.S.C. 103(a) as being unpatentable over El Tawil '216 or Sasaki '906 or Kane '827 or Barner '094 or Welsh '097 as applied to claims 1-30 above, and further in view of Bowerman '043 further in view of Takehara '902 or Riggs, Jr. '320 or Andersen '484 or Andersen '198.

The primary references teach or suggest the instantly claimed process as explained above but may differ in that dissolving the reduced manganese ore in sulfuric acid and further electrolytic oxidation treatment of the dissolved ore to form electrolytic manganese dioxide may not be stated.

Bowerman teaches dissolving reduced manganese ore in sulfuric acid. See cols. 2-4. Each of Takehara '902 or Riggs, Jr. '320 or Andersen '484 or Andersen '198 teaches or at least suggests the instantly process of subjecting a manganese sulfate solution to electrolytic oxidation to form electrolytic manganese dioxide. See the abstract of each.

It would have been obvious to one skilled in the art to use the reduced manganese ore from each of the primary references as the feed in Bowerman to form manganese sulfate solution because Bowerman requires the reduced manganese ore that is formed by each of the primary references. Furthermore, it would have been obvious to one skilled in the art to use the manganese sulfate solution formed in Bowerman as the electrolytic oxidizing solution in the process of each of Takehara or Riggs, Jr. or Andersen '484 or Andersen '198 because these references require the manganese sulfate solution that is formed in Bowerman. In re Kamlet, 88 USPQ 106.

Official Notice is taken by the examiner that the dependent claims are drawn to process particulars which, even if not expressly taught by the cited prior art of record, are well known in the art and would have been obvious to one of ordinary skill in the art to incorporate into the instantly claimed process.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Bos whose telephone number is (703) 308-2537. The examiner is on the increased flexitime program schedule. The FAX No. for After Final amendments is 703-872-9311; for all others it is 703-872-9310.



Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read "St Bos", with a long horizontal stroke extending to the left.

Steven Bos  
Primary Examiner  
Art Unit 1754